

X is selected from the group consisting of  $-\text{CH}_2-$ ,  $-\text{C}_2\text{H}_4-$ ,  $-\text{CH}_2\text{NH}-$ ,  $-\text{NH}-$ ,  $-\text{O}-$ ,  $-\text{S}-$  or a covalent bond;

Y is selected from the group consisting of O or S;

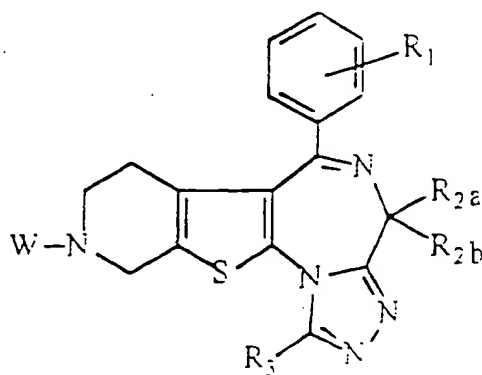
$\text{R}_1$  is selected from the group consisting of one of a hydrogen atom, a chloro, methyl or methoxy radical;

$\text{R}_{2a}$  and  $\text{R}_{2b}$  are selected from the group consisting of a hydrogen atom or a methyl;

$\text{R}_3$  is selected from the group consisting of a hydrogen atom, methyl, ethyl, propyl, butyl, pentyl, hexyl, heptyl, methoxyethyl, ethoxyethyl, dimethylaminoethyl, cyclohexylmethyl, phenyl, diphenyl, benzyl unsubstituted or substituted by the hydroxy or methoxy, phenethyl, naphthylmethyl or indolylmethyl.

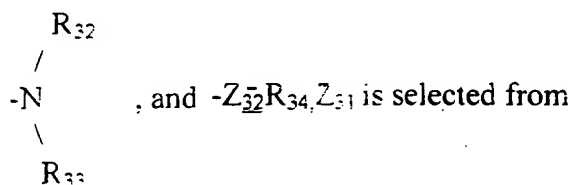
**Claim 4-8 (cancelled)**

**Claim 9 (previously presented)** A composition for treating acromegalia, hypophyseal adenomas and endocrinic gastroenteropancreatic tumors comprising an amount of a compound of the formula



$$\begin{array}{c} \text{Y} \\ || \\ \text{---} \end{array}$$

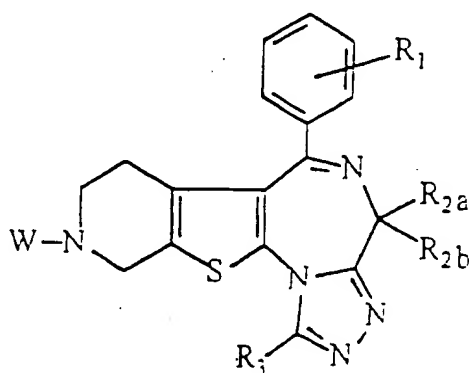
wherein W is hydrogen or  $\text{R-X-C(Y)-}$ , R is unsubstituted or substituted aryl or heteroaryl with at least one substituent selected from the group consisting of lower alkyl, lower alkoxy, lower alkylthio, lower alkoxycarbonyl, lower alkylsulfonyl, halogen,  $-\text{CF}_3$ ,  $-\text{OCF}_3$ ,  $-\text{OH}$ ,  $-\text{NO}_2$ ,  $-\text{CN}$ , aryl, aryloxy, cycloalkyl and heterocycloalkyl, X is  $-(\text{CH}_2)_n$ , Z is selected from the group consisting of a covalent bond,  $-\text{NH-}$ ,  $-\text{O-}$  and  $-\text{S-}$ , n is 0, 1 or 2, Y is oxygen or sulfur,  $\text{R}_1$  is selected from the group consisting of hydrogen,  $-\text{OH}$ , halogen, lower alkyl and lower alkoxy, the alkyl and alkoxy being unsubstituted or substituted with at least one member of the group consisting of  $-\text{CF}_3$ , lower alkoxy,  $-\text{NH}_2$  and mono and di-lower alkylamino,  $\text{R}_{2a}$  and  $\text{R}_{2b}$  are individually hydrogen or methyl,  $\text{R}_3$  is selected from the group consisting of hydrogen, halogen,  $-\text{NO}_2$ ,  $-\text{CN}$ , unsubstituted or substituted alkyl of 1 to 10 carbon atoms, unsubstituted or substituted lower alkenyl, unsubstituted or substituted alkynyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted cycloalkylalkyl, unsubstituted or substituted aryl, unsubstituted or substituted aralkyl, unsubstituted or substituted lower aryloxyalkyl, unsubstituted or substituted heteroaryl, unsubstituted or substituted heteroarylalkyl and  $-\text{Z}_{31}\text{R}_{31}$ , the substituents being selected from the group consisting of halogen, aryl, and



the group consisting of  $-\text{O-}$ ,  $-\text{C(O)-}$ ,  $-\text{OC(O)-}$  and  $-\text{S-}$ ,  $\text{R}_{31}$  is selected from the group consisting of hydrogen, lower alkyl, aryl and lower aralkyl,  $\text{R}_{32}$  and  $\text{R}_{33}$  are individually

selected from the group consisting of hydrogen, lower alkyl, aralkyl and alkylcarbonyl or together with the nitrogen form a heterocycloalkyl,  $Z_{32}$  is selected from the group consisting of oxygen, sulfur,  $-C(O)-$ ,  $-S(O)-$ ,  $-O-CO-$  and  $-SO_2-$ ,  $R_{34}$  is selected from the group consisting of hydrogen, lower alkyl, aryl and lower aralkyl and its non-toxic pharmaceutically acceptable salts sufficient to treat acromegalia, hypophyseal adenomas and endocrinic gastroenteropancreatic tumors and an inert pharmaceutical carrier.

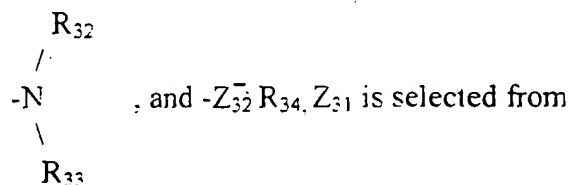
**Claim 10** (previously presented) A method for treating a condition selected from the group consisting of acromegalia, hypophyseal adenomas and endocrinic gastroenteropancreatic tumors in warm-blooded animals comprising administering to warm-blooded animals in need thereof an effective amount of a compound selected from the group consisting of a compound of the formula



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wherein W is hydrogen or  $R-X-C(Y)-$ , R is unsubstituted or substituted aryl or heteroaryl with at least one substituent selected from the group consisting of lower alkyl, lower alkoxy, lower alkylthio, lower alkoxy carbonyl, lower alkylsulfonyl, halogen,  $-CF_3$ ,  $-OCF_3$ ,  $-OH$ ,  $-NO_2$ ,  $-CN$ , aryl, aryloxy, cycloalkyl and heterocycloalkyl, X is  $-(CH_2)_n-$ ,

Z is selected from the group consisting of a covalent bond, -NH-, -O- and -S-, n is 0, 1 or 2, Y is oxygen or sulfur, R<sub>1</sub> is selected from the group consisting of hydrogen, -OH, halogen, lower alkyl and lower alkoxy, the alkyl and alkoxy being unsubstituted or substituted with at least one member of the group consisting of -CF<sub>3</sub>, lower alkoxy, -NH<sub>2</sub> and mono- and di-lower alkylamino, R<sub>2a</sub> and R<sub>2b</sub> are individually hydrogen or methyl, R<sub>3</sub> is selected from the group consisting of hydrogen, halogen, -NO<sub>2</sub>, -CN, unsubstituted or substituted alkyl of 1 to 10 carbon atoms, unsubstituted or substituted lower alkenyl, unsubstituted or substituted alkynyl, unsubstituted or substituted cycloalkyl, unsubstituted or substituted cycloalkylalkyl, unsubstituted or substituted aryl, unsubstituted or substituted aralkyl, unsubstituted or substituted lower aryloxyalkyl, unsubstituted or substituted heteroaryl, unsubstituted or substituted heteroarylalkyl and ~~Z<sub>31</sub>R<sub>31</sub> the~~  
~~substituents being selected from the group consisting of halogen, aryl~~  
~~substituted heteroaryl, unsubstituted or substituted heteroarylalkyl~~ and -Z<sub>31</sub>R<sub>31</sub>, the substituents being selected from the group consisting of halogen, aryl,



the group consisting of -O-, -C(O)-, -OC(O)- and -S-, R<sub>31</sub> is selected from the group consisting of hydrogen, lower alkyl, aryl and lower aralkyl, R<sub>32</sub> and R<sub>33</sub> are individually selected from the group consisting of hydrogen, lower alkyl, aralkyl and alkylcarbonyl or

together with the nitrogen form a heterocycloalkyl,  $Z_{32}$  is selected from the group consisting of oxygen, sulfur,  $-C(O)-$ ,  $-S(O)-$ ,  $-O-CO-$  and  $-SO_2-$ ,  $R_{34}$  is selected from the group consisting of hydrogen, lower alkyl, aryl and lower aralkyl and its non-toxic pharmaceutically acceptable salts sufficient to treat said condition.

**Claim 11 (cancelled)**

**Claim 12 (previously presented)** The method of claim 10 wherein

W is hydrogen or  $R-X-C(Y)-$ ;

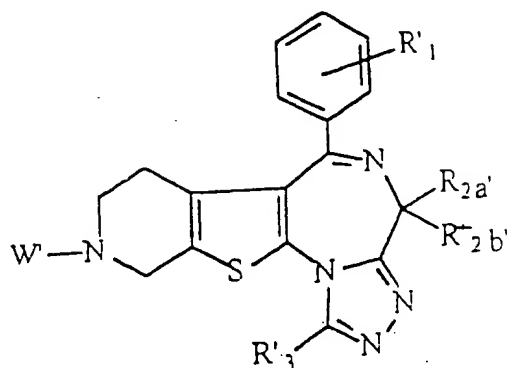
R is aryl or heteroaryl, both unsubstituted or substituted by at least one member selected from the group consisting of lower alkyl, lower alkoxy, lower alkylthio, lower alkoxy carbonyl, lower alkylsulfonyl, halo, trifluoromethyl, trifluoromethoxy, hydroxy, nitro, cyano, aryl, aryloxy or heterocycloalkyl;

$R_1$  is at least one member of the group consisting of hydrogen, halo, lower alkyl and lower alkoxy;

$R_{2a}$  and  $R_{2b}$  are independently, hydrogen or methyl;

$R_3$  is selected from the group consisting of hydrogen, alkyl of 1 to 10 carbon atoms, cycloalkylalkyl, aryl, lower arylalkyl or heteroarylalkyl the alkyl, cycloalkyl, aryl and heteroaryl are unsubstituted or substituted by at least one member of the group consisting of aryl;  $-NR_{32}R_{33}$  in which either  $R_{32}$  and  $R_{33}$  are independently, hydrogen or lower alkyl and  $-Z_{32}R_{34}$  in which  $Z_{32}$  is O and  $R_{34}$  is hydrogen or lower alkyl.

**Claim 13** (previously presented) A compound of the formula



II

wherein W' is R'-X'-C(Y')- and the substituents R', X', Y', R'1, R'2a', R'2b' and R'3 are respectively selected from the group consisting of:

- 2-F<sub>3</sub>C-Ph ; CH<sub>2</sub> ; O ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; CH<sub>2</sub> ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; O ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; CH<sub>2</sub>NH ; S ; 2-Cl ; H ; H ; Me ;
- Ph ; O ; O ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; Me ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Bz ;
- 3-F<sub>3</sub>C-Ph ; NH ; O ; 2-Cl ; H ; H ; Me ;
- 2-isoPr-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NC-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;

- 2-F<sub>3</sub>C-Ph; NH; S; 2-Cl; H; H; Et;
- 2-F<sub>3</sub>C-Ph; NH; S; 2-Cl; H; H; H;
- 2-*tert*Bu-Ph; NH; S; 2-Cl; H; H; Me;
- 1-naphthyl; NH; S; 2-Cl; H; H; Me;
- 2-Ph-Ph; NH; S; 2-Cl; H; H; Me;
- 2-F<sub>3</sub>CO-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2-F-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Et-Ph; NH; S; 2-Cl; H; H; Me;
- 2-PhO-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Pr-Ph; NH; S; 2-Cl; H; H; Me;
- 2-EtO-Ph; NH; S; 2-Cl; H; H; Me;
- Ph; NH; S; 2-Cl; H; H; Me;
- 2-Br-Ph; NH; S; 2-Cl; H; H; Me;
- 2-EtOC(O)-Ph; NH; S; 2-Cl; H; H; Me;
- 2-MeS-Ph; NH; S; 2-Cl; H; H; Me;
- 2-morpholino-Ph; NH; S; 2-Cl; H; H; Me;
- 2-NO<sub>2</sub>-Ph; NH; S; 2-Cl; H; H; Me;
- 2,6-isoPr-Ph; NH; S; 2-Cl; H; H; Me;
- 2,6-Me-Ph; NH; S; 2-Cl; H; H; Me;
- 2,5-(MeO)-Ph; NH; O; 2-Cl; H; H; Me;
- 2-MeO-5-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2,4-(MeO)-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Cl-5-F<sub>3</sub>C-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Me-5-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2,3-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2,5-Me-Ph; NH; S; 2-Cl; H; H; Me;
- 2,5-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Cl-4-Me-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Me-3-Cl-Ph; NH; S; 2-Cl; H; H; Me;
- 2-Me-5-F-Ph; NH; S; 2-Cl; H; H; Me;
- 2,3-Me-Ph; NH; S; 2-Cl; H; H; Me;

- 2-F<sub>3</sub>C-4-Br-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeO-4-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,5-Br-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeO-5-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Cl-4-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Cl-5-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Pr ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Bu ;
- 3-Ph-6-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; H ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Pr ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Bu ;
- 2-NO<sub>2</sub>-4-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeSO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-4-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 4-Cl ; H ; H ; Bz ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 4-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; pentyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; hexyl ;
- 3,5-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 3-Cl ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-F-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-NC-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 1-naphthyl-methyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 3-indolyl-methyl ;
- 2-MeS-5-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 3-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-HO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;



- 2-NO<sub>2</sub>-5-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-5-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-EtO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 4-MeO-Bz ;
- 2-NO<sub>2</sub>-4-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Br-4-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 4-HO-Bz ;
- 2-F<sub>3</sub>C-4-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; H ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph-C<sub>2</sub>H<sub>5</sub> ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; EtOC<sub>2</sub>H<sub>5</sub> ;
- 3-NO<sub>2</sub>-2-pyridyl ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 4-MeO-Ph ; CH<sub>2</sub> ; O ; 2-Cl ; H ; H ; Me ;
- 2-indolyl ; - ; O ; 2-Cl ; H ; H ; Me ;
- 3-indolyl ; ClH<sub>2</sub> ; O ; 2-Cl ; H ; H ; Me ;
- 4-HO-Ph ; C<sub>2</sub>H<sub>5</sub> ; O ; 2-Cl ; H ; H ; Me ;
  
- 4-HO-Ph ; CH<sub>2</sub> ; O ; 2-Cl ; H ; H ; Me ;
- Ph ; - ; S ; 2-Cl ; H ; H ; Me ;
- 5-MeO-2-indolyl ; - ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-Ph ; CH<sub>2</sub> ; O ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; CH<sub>2</sub> ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 4-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-Ph ; CH<sub>2</sub> ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-MeO ; H ; H ; Bu ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-MeO ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Me ; H ; H ; Bu ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Me ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph-Ph ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; cyclohexyl methyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; (Me)<sub>2</sub>NC<sub>2</sub>H<sub>4</sub> ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 3-HO-Bz ;

- 2-pyridyl ; NH ; S ; 2-Cl ; H ; H ; Me ;
- Ph ; S ; S ; 2-Cl ; H ; H ; Me ;
- Ph ; O ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; heptyl ;

and the compounds of formula II wherein W' is hydrogen and substituents R'<sub>1</sub>, R'<sub>2a</sub>, R'<sub>2b</sub>

and R'<sub>3</sub> are respectively selected from the group consisting of:

- 2-Cl ; H ; H ; butyl ;
- 2-Cl ; H ; H ; benzyl ;
- 2-Cl ; H ; H ; H ;
- 2-Cl ; H ; H ; ethyl ;
- 2-Cl ; H ; H ; propyl ;
- 2-Cl ; H ; H ; Ph ;
- 2-Cl ; H ; H ; pentyl ;
- 2-Cl ; H ; H ; hexyl ;
- 2-Cl ; H ; H ; 4-HO-Bz ;
- 2-Cl ; H ; H ; 4-MeO-Bz ;
- 2-Cl ; H ; H ; 1-naphthyl-methyl ;
- 2-Cl ; H ; H ; 3-indolyl-methyl ;
- 2-Cl ; H ; H ; Ph-C<sub>2</sub>H<sub>4</sub> ;
- 2-Cl ; H ; H ; Ph-Ph ;
- 2-Cl ; H ; H ; EtOC<sub>2</sub>H<sub>4</sub> ;
- 2-Cl ; H ; H ; cyclohexylmethyl ;
- 2-Cl ; H ; H ; 3-OH-Bz ;
- 2-Cl ; H ; H ; (Me)<sub>2</sub>NC<sub>2</sub>H<sub>4</sub> ;
- H ; H ; H ; Me ;
- 4-Cl ; H ; H ; Bz ;
- H ; H ; H ; Bz ;
- 4-Cl ; H ; H ; Me ;
- 3-Cl ; H ; H ; benzyl ;
- 3-Cl ; H ; H ; Me ;

- 2-Me ; H ; H ; butyl ;
- 2-Me ; H ; H ; benzyl ;
- 2-MeO ; H ; H ; butyl ;
- 2-Cl ; H ; H ; heptyl ;
- 4-Cl ; H ; H ; hexyl ; and
- 4-Cl ; H ; H ; pentyl.

**Claim 14 (new)** The method of claim 10 wherein the compound is selected from the group consisting of

- 1-butyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-benzyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-methyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-ethyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-propyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-phenyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' ; 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;

- 1-pentyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-hexyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(4-hydroxybenzyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(4-methoxybenzyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(1-naphthyl-methyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(3-indolyl-methyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-phenethyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-diphenyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-ethoxyethyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-cyclohexylmethyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(3-hydroxybenzyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-(dimethylaminoethyl)-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-methyl-6-phenyl-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;

- 1-benzyl-6-(4-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-benzyl-6-phenyl-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-methyl-6-(4-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-benzyl-6-(3-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-methyl-6-(3-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-butyl-6-(2-methylphenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-benzyl-6-(2-methylphenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-butyl-6-(2-methoxyphenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-heptyl-6-(2-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-hexyl-6-(4-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 1-pentyl-6-(4-chlorophenyl)-7,8,9,10-tetrahydro-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- 6-(2-chlorophenyl)-7,8,9,10-tetrahydro-1-methyl-9-[2-(2-trifluoromethylphenyl)-1-oxoethyl]-4H-pyrido[4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine ;
- [ - 6-(2-chlorophenyl)-7,8,9,10-tetrahydro-1-methyl-9-[2-(2-trifluoromethylphenyl)-1-thiooxoethyl]-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine : ]

- 6-(2-chlorophenyl)-7,10-dihydro-1-methyl-N-(2-trifluoromethylphenyl)-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carbothioamide ;
- 6-(2-chlorophenyl)-7,10-dihydro-1-methyl-N-(2-trifluoromethylphenyl)-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carboxamide ;
- 6-(2-chlorophenyl)-7,10-dihydro-1-methyl-N-(2-trifluoromethylbenzyl)-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carbothioamide ;
- 6-(2-chlorophenyl)-7,10-dihydro-1-methyl-N-benzyl-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carboxamide ;
- phenyl ester of 6-(2-chlorophenyl)-7,10-dihydro-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carboxylic acid ;
- 6-(2-chlorophenyl)-7,10-dihydro-1,4-dimethyl-N-(2-trifluoromethylphenyl)-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carbothioamide ;
- 1-benzyl-6-(2-chlorophenyl)-7,10-dihydro-N-(2-trifluoromethylphenyl)-4H-pyrido [4',3' : 4,5] thieno [3,2-f] [1,2,4] triazolo [4,3-a] [1,4] diazepine-9(8H)-carbothioamide ;

or its substituents R, X, Y, R<sub>1</sub>, R<sub>2a</sub>, R<sub>2b</sub> and R<sub>3</sub> are respectively the following :

- 2-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-isoPr-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NC-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Et ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; H ;
- 2-terBu-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 1-naphthyl ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>CO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Et-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-PhO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Pr-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Br-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;

- 2-EtOC(O)-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeS-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeO-5-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,4-(MeO)-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Cl-5-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Me-5-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,3-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,5-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,5-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Me-5-F-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-4-Br-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-MeO-4-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2,5-Br-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Cl-5-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Pr ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Bu ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; H ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Pr ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Bu ;
- 2-MeSO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-4-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 4-Cl ; H ; H ; Bz ;
- 2-F<sub>3</sub>C-Ph ; NH ; S ; 4-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; pentyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; hexyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 3-Cl ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-F-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-NC-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;

- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 1-naphthyl-methyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 3-indolyl-methyl ;
- 2-MeS-5-F<sub>3</sub>C-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 3-Cl ; H ; H ; Me ;

- 2-NO<sub>2</sub>-5-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-5-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-EtO-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 4-MeO-Bz ;
- 2-NO<sub>2</sub>-4-Cl-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-Br-4-Me-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 4-HO-Bz ;
- 2-F<sub>3</sub>C-4-NO<sub>2</sub>-Ph ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; H ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph-C<sub>2</sub>H<sub>4</sub> ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; EtOC<sub>2</sub>H<sub>4</sub> ;
- 3-NO<sub>2</sub>-2-pyridinyl ; NH ; S ; 2-Cl ; H ; H ; Me ;
- 2-F<sub>3</sub>C-Ph : - : O ; 2-Cl ; H ; H ; Me ;
- Ph : - : S ; 2-Cl ; H ; H ; Me ;

- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 4-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-Ph ; CH<sub>2</sub> ; S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-MeO ; H ; H ; Bu ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-MeO ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Me ; H ; H ; Bu ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Me ; H ; H ; Bz ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; Ph-Ph ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; cyclohexylmethyl ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; (Me)<sub>2</sub>NC<sub>2</sub>H<sub>4</sub> ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; 3-HO-Bz ;
- Ph : S : S ; 2-Cl ; H ; H ; Me ;
- 2-NO<sub>2</sub>-4-MeO-Ph ; NH ; S ; 2-Cl ; H ; H ; heptyl.